ERIC Document Resume	See Instruction Sheet	DATE OF RESUME 6/23/65	DATE RECEIVED

A. PUBLICATION DATA

1. ERIC NUMBER	2. ORIGINATOR CONTROL NO(S).	3. IDENTIFICATION NO.
ED000135	7473	N.A.

DO NOT WRITE IN SPACE BELOW

4. AUTHOR(S):
Hill, Clyde M. et al.

5. TITLE OF DOCUMENT ABSTRACTED:
Teacher Assistants, An Abridged Report - The Yale-Fairfield Study of Elementary Teaching

6. PUBLICATION TITLE:
N.A.

7. EDITOR(S):
N.A.

9. PUBLISHER OR SOURCE
Yale University

8. PLACE OF ORIGIN
ORG. Yale University
ST. New Haven, Conn.
CITY, STATE
TELE. EXT.
INST/LOC CODE

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PP.
N.A.	N.A.	59	52

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TYPE OF REPORT
PROPOSAL ☐
IN-PROGRESS ☐
FINAL ☒
FOLLOW-UP ☐

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

B. INDEXING DATA

14. SUBJECT AREA

15. TYPE OF ENDEAVOR
experimental study

16. INDEXING TERMS (8-12)

experimental studies	elementary edu.		
teacher education	teaching methods		
professional education	field instruction		

17. ABSTRACT (MAX. 250 WORDS)

An experiment with the training and use of teacher assistants in a variety of teaching situations in elementary schools. Includes discussion of purpose and scope of program; methods, procedures, and costs; assistant's job; preparation of assistants; and the effect of program on pupils, teacher assistants, and teachers. Presents summary of findings, conclusions, and recommendations.

ERIC No.

18. SOURCE OF ABSTRACT

C. FUNDING DATA

19. SUPPORTING ORGANIZATION	20. DIVISION OR DEPT.	21. CONTRACT NO. / PROJECT NO.
	22. TOTAL COST OF PROJECT	
	23. DURATION OF PROJECT	U.S. Department of Health, Education, and Welfare Office of Education

ERIC Form 1

ED000135
5-18 R # 7473
HE7473

TEACHER ASSISTANTS

An Abridged Report

THE YALE–FAIRFIELD STUDY OF ELEMENTARY TEACHING

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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February, 1959

ED000135

TEACHER ASSISTANTS

An Abridged Report

THE YALE–FAIRFIELD STUDY OF ELEMENTARY TEACHING

A cooperative project conducted by Yale University and the Fairfield, Connecticut Public Schools and financed by a grant from the Fund for the Advancement of Education

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NEW HAVEN, CONNECTICUT, FEBRUARY, 1959

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ACKNOWLEDGMENTS

The Fairfield Public Schools, Central Administrative and Supervisory Staff: J. Harry Craig, Margaret Donnelly, Alice Duckworth, William J. Edgar, Alice Healy, Walter H. Hellmann, Florence V. Hickey, Carlyle G. Hoyt, Anita Klein, Lowell J. Lippincott, Richard Ricciardi, Leo Rosenthal, Marjorie Shallue, Regina Steucek, George Taylor. *School Principals,* Alfred L. Bowes, Florence Evans, Walter B. Holt, Lila S. Osborne. *Assistant Principals,* Margaret E. Griffin, Carrie M. Veckerelli. *Teachers,* Mary Jane Bernier, Jennie Bulkley, Lucille J. Godfrey, Margaret Kollar, Robert Kranyik, Catherine Lindsay, Nora Mayerson, Genevieve McCarthy, Lottie Palmer, Mary Polis, Marilyn Randall, James Reeves, Catherine Rusnak, Janet St. Pierre, Eleanor Sutliff, Anna M. Trainor, Carrie M. Veckerelli.

Reviewers of Preliminary Draft of Report: Joseph A. Baer, Alfred L. Bowes, Jeannette Brown, Paul S. Burnham, J. Harry Craig, William J. Edgar, Florence Evans, Bessie Lee Gambrill, Florence F. George, D. Bob Gowin, Eben M. Graves, George H. Griswold, Walter H. Hellmann, Florence V. Hickey, Walter B. Holt, Carlyle G. Hoyt, Alice V. Keliher, Norine F. Kennedy, Douglass W. Lawder, Mark A. May, John W. McTernan, Lila S. Osborne, S. Willard Price, Louis E. Raths, Maurice J. Ross, Wilfred J. Sheehan, Minott A. O. Stillson, Jr., J. Warren Tilton, Frederick B. Tuttle, Carrie M. Veckerelli, Isadore L. Wexler.

Yale–Fairfield Study Secretaries: Hazel R. Dingle, Magdalen Burke.

TABLE OF CONTENTS

	Page
I. An Experiment in the Use of Teacher Assistants	1
A. Purpose and Scope	1
B. Methods, Procedures, and Costs	4
C. The Assistant's Job	9
D. Preparation of Assistants	12
II. Results	15
A. Effect on Pupils	15
B. Effect on Teacher Assistants	30
C. Effect on Teachers	33
III. General Conclusions	38
A. Summary of Findings	38
B. Conclusions	43
C. Recommendations	50

I

AN EXPERIMENT IN THE USE OF TEACHER ASSISTANTS

A. Purpose and Scope

The Problem

It is now generally conceded that a shortage of teachers, and especially of good teachers, is likely to be a perennial problem. Moreover, conditions under which schooling is carried on vary enormously from school to school, from time to time, and even from teacher to teacher, with the result that there is great unevenness in learning opportunities for pupils. Responsible school officials not only are charged with recruiting competent teachers, but must constantly seek new means to improve the quality of instruction and equalize opportunities for learning. To this end in recent years there has been a revival of interest in the use of teacher assistants.

Purpose of the Present Experiment

Under the pressure of a teacher shortage of more than usual seriousness, it seemed likely that harassed school boards might seize upon teacher assistants as a device to relieve the situation and in so doing lower standards of schooling and do violence to the professional status of teaching. Naturally, the first schools to employ such assistants (or aides) were those in which there were significantly oversized classes. Although these schools proceeded with caution and made careful evaluations of their work, teachers and many parents throughout the country were very much concerned

about the impact of such a plan upon standards of instruction. Meantime, many studies pointed out that one cause of the teacher shortage was the excessive load of professional services and non-professional duties which teachers were expected to carry.[1] The questions arose: Would not more young people enter teaching, and would not more capable people remain in teaching, if teachers were relieved of many of their less professional chores? It seemed to many educators that teacher assistants might be used in such a way as to provide this relief at a reasonable cost and would in no way jeopardize the interests of the children. If this hypothesis is true, recruitment of teachers might be accelerated, standards of instruction might be maintained or improved, and the professional status of teachers might be made more secure. The Yale-Fairfield Study of Elementary Teaching was undertaken in an effort to test this and related hypotheses in a socially privileged community where class size is never permitted to become excessively large and where teachers are unusually well qualified.

Relation to Other Projects

Experimentation with the use of teacher assistants is one of four projects constituting the Yale-Fairfield Study of Elementary Teaching—a study designed to find ways of improving instruction in the elementary schools through the better recruitment and better preparation of teachers and the more effective use of their talents and proficiencies. The first year of the Study (1954–55) was devoted to background research, the methods and results of which were reported in 1956.[2] The most significant findings of the research were (1) the need to relieve teachers of many routine, nonprofessional, but essential duties which have become associated with elementary schooling but many of which are time- and energy-consuming tasks diverting teachers from their professional responsibilities; (2) the need for developing programs of preparation for teaching which while giving due emphasis to liberal studies would identify the students from the outset with school practice and professional study, thus serving the dual purpose of providing assistance for teachers

[1] For a review of the literature see Yale-Fairfield Study of Elementary Teaching, *Report: 1954–1955* (New Haven: The Study, 1956), Chapter II.
[2] *Loc. cit.*

and first-hand acquaintance on the part of students with the techniques and problems of school procedures.

After exploring alternatives, of which there are many, four experimental projects were undertaken:

1. The training and use of teacher assistants in a two-year experimental program in a variety of teaching situations.

2. The professional preparation of teachers in a program of college study and school participation as teacher assistants extending through four academic years and four summer sessions. (To distinguish this group from the assistants mentioned above, they will be referred to in this report as "fellows.")

3. The professional training over a period of three years of young mothers who are liberal arts college graduates and who will be able to take full-time teaching appointments at the conclusion of a program of college study and participation as teacher assistants.

4. The selection and training of volunteer assistants. This program is being developed jointly by our staff and the Connecticut Parent-Teacher Association Council.

This report is concerned with the first of the projects listed above.

Special Conditions

American schools had much experience with one sort of teacher assistant before 1820, when extensive use of pupils as teacher assistants was carried on in this country and elsewhere under an arrangement known as the Lancasterian or monitorial system.[3] Under various plans and in varying degrees over the years many studies have been made of the use of assistants in the schools, and in recent years a few experimental projects have been set in motion.[4] None of the previous experiments, however, has been technically restricted like the present one, in its (1) selection of students with special qualifications right out of high school to serve as teacher assistants; (2) use of teacher assistants in classes of near-normal size in a better-than-average school system; (3) development of a program of orientation and preparation for long-time service as teacher

[3] *Ibid.*, Chapter III.

[4] For example, see Annual Reports of "A Cooperative Study for the Better Utilization of Teacher Competencies," Central Michigan College of Education, Mount Pleasant, Michigan; and Yale-Fairfield Study of Elementary Teaching, *op. cit.*, Chapter IV.

assistants; (4) avoidance of any single pattern of teacher and assistant relationships; (5) use at all times of a concept of teaching which distinguishes it from mere instruction or intellectual regimentation.[5]

Previous Research

The literature directly pertinent to the project is limited. Furthermore, little of it reports the findings of substantial research or experimentation. It consists largely of opinions of writers who have had no direct experience with the use of aides or of those whose association with teacher assistants has been restricted to a short period of observation. Consequently, it abounds in claims, counterclaims, warnings, and forebodings. Nevertheless, an examination of the literature helped in defining the problem and formulating the hypotheses to be tested in the experimentation reported here. A further discussion of the major claims and criticisms that have been made and of the bearing upon them of the findings of the present experiment will be found in the concluding section of this report.

B. Methods, Procedures, and Costs

The Community

The elementary schools of Fairfield, Connecticut, provided the laboratory in which the Yale-Fairfield Study experimental program in the use of teacher assistants was carried on for the school years 1955–56 and 1956–57. This Study was fortunate in being able to undertake such a project in a community like Fairfield, where public interest in and support of education is strong and where the schools are staffed by highly competent professional people alert to problems of education today and ready to experiment toward possible solutions.

Generally not more than twenty-five pupils are assigned to one teacher in Fairfield in grades 1–2 and not more than thirty in grades 3–6, but because of population growth and other exigencies some pupil groups—about 18 per cent of the total number in 1956–57—

[5] Yale-Fairfield Study of Elementary Teaching, *op. cit.*, Chapter V.

somewhat exceeded these limits. Such larger groups provided the situations in which experimental work with teacher assistants could be most profitably carried on.

Cooperating Teachers

In selecting situations in which assistants were to be used, the Yale-Fairfield Study considered not only the factor of class size but also the experience, professional status, attitude, and interest of the cooperating teacher. Since much which might be discovered about the uses of assistants would depend on the willingness and the ability of regular classroom teachers to adapt and appropriately modify their procedures, great care was exercised in the selection of the teachers whose cooperation was to be enlisted. Teachers were readily found who were willing to accept the assignment and who gave their time, thought, and energies to exploring the possibilities inherent in the program involving the use of assistants and shared with the staff of the Study the responsibilities for evaluation.

Types of assignment

Beyond the factors of class size and the ability and readiness of the teacher to undertake the experimental work with assistants, no attempt was made to standardize the types of situations selected. Assistants were utilized in varying patterns appropriate to the needs existing in different school and classroom organizations. During the two years of experimentation assistants were given assignments of the following types: (a) one-to-one assignment, with an assistant serving one teacher full time in a self-contained classroom; (b) pooled assignment, where one assistant served a group of teachers and also performed additional whole-school clerical services; and (c) multiple-faculty assignments, where a team of two or three assistants served a team of four or six teachers involved in a cooperative program of school organization and instruction.

Two assistants were given one-to-one assignments in 1955–56, one in Grade 6 with a teacher who carried some administrative duties as "head teacher," under a principal who had charge of another school as well, and whose class numbered thirty-five

pupils; the other in Grade 1 with an experienced teacher whose class numbered thirty-three pupils.

One assistant was given a pooled assignment in 1955–56. She was assigned to three teachers in Grade 6, each of whom had a class group of thirty or more pupils in a large elementary school.

Of the various patterns for use of the services of assistants, the multiple-faculty plan was probably most unusual. Here the objective was not solely to relieve the teacher of nonteaching duties in order that she might devote more time to essential teaching tasks within the traditional grade pattern of organization, but also to discover if teachers who were freed from routine tasks might be able to plan together an organization and program of instruction for pupils which would provide for more efficient learning, allow for flexible grouping of pupils across grade lines when efficiency could be thus improved, and utilize more fully the special interests and competencies of teachers for the benefit of larger groups of pupils.

During the school year 1955–56 a multiple-faculty plan was begun experimentally in one school setting. The group was composed of sixty-two second-grade pupils and sixty-seven third-grade pupils, four classroom teachers, and two assistants. Of the teachers involved, two were highly experienced and especially expert in the field of reading, and two were beginning teachers with less than three years of teaching experience. With the cooperation of the principal and of specialists in curriculum areas, the four teachers planned a program in which the basic classroom groups of pupils were kept intact for most learning activities but were supplanted by other groupings for certain specific purposes. Although this plan required that some children change classrooms for some activities, the assistants were available to aid them. The assistants also helped with the larger groups, while the teachers having smaller groups worked alone.

Because of the interesting possibilities for improvement of teaching found in the multiple-faculty plan of school organization, it was decided that all assistants should be assigned to such programs for 1956–57. The grade levels, however, were changed from second and third to third and fourth. The program begun in one school

in 1955–56 was expanded there to include six teachers, three assistants, and 195 third- and fourth-grade pupils. The assistants each worked with two teachers and two basic classroom groups of pupils. A second multiple-faculty program was initiated in 1956–57 in another elementary school, involving three teachers, two assistants, and 106 pupils—one basic classroom group in Grade 3 and two in Grade 4.

Although in each case the details of organization under the multiple-faculty plan were different, being adapted to the abilities and interests of the teachers and to the potentialities and limitations of each school situation, the following conditions were common to all: (1) flexibility, permitting special grouping for certain instructional purposes; (2) use of teacher assistants; (3) teamwork and some specialization of function by teachers; (4) participation in planning and supervision by school principals and curriculum consultants. To a rather limited degree, also, the differentiation between school grades was disregarded in the organization of instruction.

Selection of Teacher Assistants

Certain criteria were established for the selection of persons to work as teacher assistants. Minimum qualifications for acceptance into the program required that the applicant

be graduated from an accredited secondary school,
be recommended for employment by the guidance personnel of the secondary school,
provide recommendation covering moral character,
present evidence of physical fitness,
possess such qualities of personality as seem suitable for work with children.

It was not intended that the applicants should be required to show superior academic achievement or high scholastic aptitude or to have followed a college preparatory program. The reasons for omitting such requirements were that it was believed (1) that by careful selection among those not possessing these qualifications persons could nevertheless be found who would become

highly satisfactory teacher assistants after suitable training; (2) that such persons might be more permanently satisfied with the status of teacher assistants than would high school graduates having plans for higher education; and (3) that another experimental group composed of high school graduates fully prepared for college could be formed. It was decided that assistants would be drawn exclusively from among recent high school graduates; in order to explore this specific source of supply more intensively, older applicants were purposely excluded.

Since the employment offered assistants was for the period of the school year, September to June, it was expected that some of the young people employed might be lost to other types of employment secured during the summer vacation. This was true of two of the five assistants employed for 1955–56; the resignations created two vacancies to be filled. It was decided to select replacements from among applicants who were recent high school graduates in order to hold to the original conditions of the experiment. Two applicants were accepted into the program in the fall of 1956.

Costs

The general objective of the present study in relation to cost was to manage the assistant program in such a way that the educational costs of the community would remain unaffected. The teacher assistants were paid at the prevailing rate for persons of similar qualifications in other employment in the area. In 1955–56 they received forty dollars per week and in 1956–57 they received forty-five dollars per week. Their pay during those two years was provided out of the budget of the Yale-Fairfield Study, but certain other costs of the experiment were met by the Fairfield school system. It is estimated by the Assistant Superintendent of Schools of Fairfield that—apart from the costs of setting up an experiment and observing, evaluating, and reporting on it—the school system might have recruited, trained, and employed the assistants over the two-year period without any increase or decrease in its operating budget.

C. The Assistant's Job

General Nature

What tasks can safely be delegated and what tasks should be retained by the teacher? In the present experiment the issue was not settled in advance and prescribed as part of the experimental conditions. Instead, the cooperating teachers were asked to work out the assignment of duties to their assistants on the basis of the needs and opportunities of their own teaching assignments. Thus the record of how the division of labor was made in each case is one of the main items of information sought.

Assistants were generally called upon not only to relieve the teacher of clerical and housekeeping types of work but also to help with the supervision of pupils both in and out of the classroom and with many other tasks, amounting in some instances to actual instruction. The uses of the assistant in instruction were usually directly under the eye of the teacher in charge and consisted of fairly simple tasks, but in no case was a clear line of separation drawn between instructional and noninstructional duties. If it had been, and if the assistants had been restricted entirely to noninstructional duties, they would undoubtedly have found themselves with empty hands much of the time. As it was, they had plenty to do; yet the teachers were kept busy also, as shown by their reports.

Clerical Tasks

Apparently not all a teacher's clerical duties can be taken over by an assistant; at least in no case did a teacher in the present experiment actually delegate to the assistant all of the clerical tasks for which she was responsible. Nevertheless, because such tasks constitute an important part of the total workload, the fact that most teachers were able to delegate considerable amounts of clerical work to their assistants proved quite helpful to them in every instance. Time was an important factor: whereas teachers must get clerical tasks done in such free time as they can contrive, those who had assistants could arrange to have it done as and when needed. The more even use of limited facilities such as duplicating

equipment was also an advantage. In most instances clerical work did not occupy as much as half of the assistant's time, but did occupy more than one-fourth of it. The types of clerical task not ordinarily assigned to an assistant were those into which a large element of discretion also enters: preparation of report cards, maintenance of cumulative records, etc.

Housekeeping

Although any competent assistant can easily take over all the housekeeping duties that the teacher has not already delegated to pupils, and generally can relieve the teacher of the job of supervising pupils in these tasks as well, housekeeping is really only a minor item, normally accounting for only about 3 per cent of the teacher's working day.[6] (Some teachers make much of it, and possibly in some cases where custodial services are inadequate it is actually burdensome, but only rarely is more than a few minutes per day necessarily consumed in such work.) The virtual elimination of housekeeping functions from the teacher's job, while easily possible where an assistant is available, is by itself no great relief to the busy teacher.

Supervising Children

Although there were wide differences among individual teachers in the matter of giving their assistants responsibility for supervision of pupils outside the classroom, as a general rule the assistants did have some amount of such work assigned to them which they carried on under the immediate or remote direction of some teacher. In some instances the net result may not have been that the teacher with an assistant devoted less time to supervising children, but simply that more supervision was given. This was an area of teacher responsibility in which the services of the assistant proved to be most widely shared by the teachers to whom they were assigned. Often the playground duty or lunchroom duty undertaken by the assistant relieved not the teacher to whom she was primarily assigned but some other teacher in the same school.

[6] A tabulation of the amounts of time reported to have been devoted to housekeeping by elementary teachers in Bay City, Michigan, yields a median of only ten minutes per day.

Assistants help in lunchroom supervision.

Planning coöperatively is an important task for teacher and assistant.

Helping with Instruction

Helping with instruction, undoubtedly the most controversial of the assistants' functions, actually constituted the greatest single share of their workload in most instances according to the records kept. Many of the assistant's duties were carried on in the classroom and in the presence of children; otherwise her usefulness to the teacher would have been severely restricted. The distinction between teaching and nonteaching duties is somewhat blurred and not particularly useful as a means of determining what may properly be delegated to the assistant. The teacher's job is so broad as to include many tasks that are easy and make little demand on professional preparation, yet whose importance in the total process is unquestionable. At the other extreme the job includes tasks that may challenge the teacher at the highest level of her professional competence. The variety of instructional situations in which the cooperating teachers found it practicable to have the assistant help is rather surprising. Particularly frequent was the use of the assistant to help individual pupils with their work.

Planning

Although planning is a necessary part of the assistant's job, there is little evidence from the cases reported that this represents a delegation of any part of the teacher's own work in planning. It seems likely that more man hours may be required for planning when two are doing the job than when one does it alone, and possibly the time spent by the assistant on this function is merely additional to that ordinarily spent by the teacher and does not really relieve her at all. Undoubtedly the quality of the planning is somewhat modified by the fact that an assistant is on the job, tending to become more specific, detailed, and definite. Usually most of the planning actually reported appears to have been done before the opening and after the close of the regular school sessions. In terms of time required it was in all cases only a minor part of the assistant's job.

Other Aspects

There are a few final observations to be made on the nature of the assistant's job as revealed by the record of experience in the

present experiment. Because the assistant is not primarily responsible for the instructional program, her job is not tied down to the schedule of pupil activities nearly so much as is the teacher's. The assistant tends to do much of the coming and going that a teacher can ill afford to do herself, yet cannot always have a pupil do. Considerable amounts of work are done by the assistant during school hours that would ordinarily be done by a teacher outside of school hours. The assistant's work can generally be more easily interrupted, with less harm done to the learning situation, than can the teacher's. For that reason a number of what would have been minor interruptions to the teacher are generally transferred to the assistant when she is in the room. This aspect of the job is not always reflected in written records but can easily be detected by an observer.

Although all the assistants were kept busy with useful and necessary work from the time they arrived at school until they left, they appeared to have little work to do at home in comparison with teachers. In this experiment they were given in-service training and thus were called upon to attend seminars, do recommended reading, etc.; but teachers frequently have responsibilities of this sort also, besides considerable amounts of work in lesson preparation, school-community projects, and similar duties. In these areas the load carried by the assistants was very light.

D. Preparation of Assistants

Educational Status and Needs

Although the assistant's job, as shown in the preceding section, does not require the full development of professional competence in teaching, it certainly does require basic abilities of several kinds, adequate general education, and some specific training. It is not to be expected that recent high school graduates, especially those not prepared for college, would bring to the job all the fully developed skills and abilities that might be found useful in it. In the present study it was assumed at the outset that in-service training for the assistants would be an essential part of the experimental program. The question to be determined was whether such assistants, recruited as previously specified and provided with a carefully de-

School and staff personnel conduct a seminar for assistants.

Assistants learn to set up and operate the audio-visual equipment used in a classroom.

signed in-service training course, could grow into their jobs and gradually become efficient and generally acceptable helpers to busy professional teachers.

Because all the assistants had graduated from high schools in which high standards of teaching are known to prevail, a certain common denominator of general education could be taken for granted at the start. Indirectly the assistants were given many opportunities to further their general education. For example, in helping pupils with individual research undertakings, in assisting in the school library, and in helping teachers with the preparation of lesson materials, the assistants could hardly avoid learning something of general cultural value.

In addition to their general educational background all the assistants brought to their jobs useful practical experience of some kind and certain ready skills that were of immediate value. All but one of them had had office or sales experience in local stores, mostly as part-time jobs. All but two had had child-care work outside their own immediate families—such experiences with children as baby sitting, teaching Sunday school, or counseling at a camp. Most had had instruction in typing or had learned it on their own, and several had well-developed musical or artistic talents. Also, some were interested in homemaking skills such as sewing and cooking, which can often be used in connection with school activities. Although these skills and abilities were of a sort that would be useful in school work so far as they go, they did not seem to be sufficient. In some areas they needed to be developed further; and in others, new skills needed to be acquired.

In-service Courses Provided

An appraisal of the general requirements of the training program led to the planning of work in the following areas:

1. Orientation to the school system, the particular school in which assignment was made, and the responsibilities of the job.
2. School health facilities and problems, and first aid.
3. Operation and care of audio-visual equipment.
4. Art workshop: media and techniques.
5. Creative rhythms workshop.

6. Recreation and children's games.
7. Weekly seminar on elementary school curriculum, problems, and practices.

Appraisal of Preparation Program

In several of the courses and workshops listed above it was found possible to include the assistants in activities planned primarily for teachers, especially beginning teachers. Although their needs were not quite the same, they were able to mix easily into teacher groups and were apt students. They quickly learned such new skills as the operation of audio-visual equipment and recreational leadership and extended their knowledge in other areas.

Although the staff had no doubt whatever that the learning opportunities provided for the assistants resulted in substantial benefit to them and to the teachers to whom they were assigned, the adequacy of the program may very well be questioned. In retrospect it seems to the staff that the seminar should have been started earlier and continued longer and should have included more study of child growth and development. Certain skills, too, might have been developed further, particularly in the fields of recreation, music, and art. Certain specific clerical procedures of immediate usefulness, such as the keeping of the register, might also have been taught. In general, however, the content and methods of the educational program were considered satisfactory. Including the assistants in teacher in-service groups for specific purposes and providing a separate seminar for general background seems to have accomplished to a large degree what was intended.

II

RESULTS

A. Effect on Pupils

Expected Results

One of the principal objectives of the present experiment was to promote the best interests of pupils at all stages. In the planning of assignments and in the determination of the division of labor between the teacher and the assistant, every effort was made to maintain the general high standard of learning conditions that Fairfield expects its schools to provide. We shall now attempt to assess the results of the experiment in terms of its effect on pupils, to find out, so far as possible, the extent to which this objective was attained. It was hoped and expected in view of the precautions taken that measures of pupil achievement would reveal that in the experimental situations where assistants were used, the pupils' progress was as much as or more than in normal classrooms. It was expected also that other indicators of pupil well-being, such as parent reactions, informal evaluations by teachers and school principals, a sociometric scale, etc., would show the experimental situations to be at least satisfactory.

Instruments Used in Evaluation

The regular testing program in the Fairfield schools provides for the giving of the Metropolitan Readiness Tests in kindergarten, the Metropolitan Achievement Tests in the primary grades, and the California Achievement Tests in grades 4 through 6. The regularly given tests are administered in May of each year. The pupils whose

progress was being followed for the purposes of the Yale-Fairfield Study were also given the California Tests in Social and Related Sciences in grades 4 through 6. These tests were administered in November and May 1956 and the same months in 1957, alternate forms being used for tests given in the same year. The tests were all administered by the classroom teachers.

A "Rating Scale for Pupil Adjustment" was used as a means of obtaining systematically the impressions teachers have of their pupils' over-all emotional adjustment and of their work habits. A sociometric measure, a form of the "Guess Who" test, was also used in an effort to discover any effect the experiment might have had on the social acceptance or isolation of pupils. Furthermore, provision was made for written evaluations relating to pupil progress in general, to be prepared by all teachers to whom assistants or "fellows" (see above, p. 3) were assigned. School principals were also asked at the end of each year to prepare evaluative reports, in which their judgment of the general effects of the experiment on pupils was solicited. Finally, parent opinions as to their own children's reactions to the experimental situations in which they were placed were obtained by means of questionnaires circulated by the school principals.

Selection of Experimental and Control Groups

Although rigorous experimental procedures were not undertaken in the present study, a substantial effort was made to provide a degree of experimental control in the evaluation of effects on pupils. In order that control groups might be as comparable as possible to the experimental groups, the same principles of selection were applied. The groups were chosen so as to be comparable in all respects except the experimental conditions themselves, within the limitations of what was practicable in a normally functioning school system. Immediately after the choice of experimental groups at the beginning of each school year, control groups were selected in the following manner: from among all groups in the Fairfield school system at the same grade levels as the experimental groups those in certain geographical areas where the school communities were in marked contrast to those in which the experimental groups were located

were first eliminated; the person responsible for coordinating the experimental program with that of the school system, namely an assistant director of the Yale-Fairfield Study who had previously served for several years as an elementary school principal in Fairfield, then judged the general teaching experience and competence of the teachers of the remaining groups and selected those she considered to be most comparable to the experimental teachers already chosen; following this, the preceding year's test results were examined and the median "total achievement" score[7] of each group was used as a further basis of determining comparability. It was not possible to equate the groups with respect to class size, but the control groups were segregated into two sets, "large-control" groups, approximating the average size of the experimental groups, and "normal-control" groups, approximating the average size of normal class groups in the Fairfield school system. In this way the possible effects of class size on the results would be minimized in the comparison between the multiple-faculty and large-control categories and would be segregated and measured in the comparison between the large- and normal-control categories. In the discussion that follows, the word "group" will be used to refer to all pupils assigned to a particular teacher during a particular school year, and the word "category" will be used to refer to all groups designated for experimental purposes as multiple-faculty, large-control, or normal-control.

In the comparisons based on achievement tests no attempt was made to combine the two cases in which assistants were assigned singly to teachers or the case in which an assistant's services were shared by three teachers (pooled assignment) with the more numerous multiple-faculty assignments.[8] A comparison between the multiple-faculty, large-control, and normal-control categories—showing the degree to which they were equated on the basis of the

[7] The "total achievement" scores do not, of course, reflect pupil accomplishment in all curriculum areas. They are simply totals or averages derived from the test batteries actually used.

[8] The results for these groups will be found in the original report of the study. The results for the multiple-faculty groups, reported here, represent the bulk of our experience with teacher assistants.

initial "total achievement" score and equated or contrasted on the basis of size—is given in Table I.

TABLE I

Initial Comparability of Multiple-faculty with Control Categories in Achievement Status and Class Size

	CATEGORY		
	Multiple Faculty	*Large Control*	*Normal Control*
Number of groups	12	12	12
Average initial achievement status	3.22	3.33	3.23
Average class size	30.4	29.4	24.8

The differences in initial achievement status, measured in grade-equivalent years, do not even remotely approach statistical significance. The difference between the multiple-faculty and large-control categories in average class size—an average difference of one pupil—is not statistically significant, but the difference between the large- and normal-control categories in average class size is significant at the .01 level of confidence. This might be expected, of course, since the contrast in class sizes was intentionally established in the selection of groups.

Despite the effort to assure reasonable comparability of the sets of groups, as described above, factors other than general achievement level and group size remained largely uncontrolled or were controlled but imperfectly. Foremost among these factors is intelligence. The equating of groups directly upon the basis of intelligence test scores would have provided a greater measure of control over this important factor, but partial control was undoubtedly achieved through the equating of groups on the basis of achievement, since intelligence and achievement are strongly correlated. Social status was another factor not strictly controlled, but the procedure of eliminating groups that were manifestly noncomparable in social and community background would provide partial control. Although the groups were not matched by age, they were matched by school grades, and the age-grade relationship nowadays

is so strong that a serious degree of noncomparability in age seems unlikely. No doubt several other factors that may have affected the results were left entirely uncontrolled, but the circumstances of the present experiment did not permit elaborate design and rigorous methods. Further refinement and the exploration of the possible effects of factors uncontrolled or poorly controlled in the present study must await future research.

Effect on Pupil Achievement

The gains in achievement as measured by the various tests are reported here in terms of grade-equivalent years. All the data are averages: the means for all pupils in each group were first obtained and these were then averaged to give the means for the categories. Analysis of variance was used to determine whether the comparisons between the multiple-faculty and large-control and between the large-control and normal-control categories yielded significant differences. A comparison of the results from the general achievement test batteries is given in Table II.

TABLE II

Comparison of Average Gains by Multiple-faculty, Large-control, and Normal-control Categories on General Achievement Tests, in Grade-equivalent Years

	CATEGORY		
	Multiple Faculty	*Large Control*	*Normal Control*
Reading	1.14	1.08	.88
Arithmetic	1.13	1.06	.90
Spelling[a]	.96	.92	.89
English and grammar[b]	1.60	1.04	1.07
"Total achievement"	1.15	1.05	.94

[a] Grades 3 and 4 only: ten groups in each category.
[b] Grade 4 only: four groups in each category.

None of the differences in either of the comparisons between categories is significant. Although the mean gains in the multiple-faculty category are all slightly greater than in the large-control

category and these in turn are with one exception greater than in the normal-control category, the differences cannot be definitely attributed to the effects of the experimental condition or to the factor of group size. There is strong support, however, for the opinion that neither the experimental plan nor the moderate increase in group size *adversely* affected the pupils' gains on achievement tests in any general way. An interesting sidelight is the fact that in terms of "total achievement" the smallest mean gain by a multiple-faculty group (.85) considerably exceeded the smallest of the large-control and normal-control group gains (.68 and .65, respectively), but the largest mean gain by a multiple-faculty group (1.41) fell short of the largest large-control group gain (1.61), though it exceeded the largest normal-control group gain (1.27). In general the results from the multiple-faculty groups show pupil progress to be at least as great as would normally be expected.

The California Tests in Social and Related Sciences provide comparisons between the multiple-faculty and control categories for the fourth grade only, not being appropriate to the earlier grades, where these subjects are for the most part incorporated in reading instruction. Furthermore, in one of the large-control groups these tests were not given, because of a clerical error in the identification of groups, thus destroying the balanced comparison of four groups in each category. Because of these circumstances and because the small difference in class size between large- and normal-control groups had not been found to be significantly related to gains on other achievement tests, it was decided that all control groups should be placed in one category for comparison with multiple-faculty groups in the social science field. This plan also permits the inclusion in the multiple-faculty category of a group that had been dropped solely for the purpose of balancing the number of groups in each category. The resulting comparison, therefore, will be between five multiple-faculty and seven control groups, the control groups being slightly smaller on the average. Analysis of variance will be used for the evaluation of the results.

Table IiI gives the results of the Social and Related Sciences tests in terms of mean gains and provides a comparison between the multiple-faculty and control categories on each test. Allowance

must be made for considerable unreliability in the measurement of these gains even when group means are used.

TABLE III

Comparison of Average Gains by Multiple-faculty and Control Categories (Fourth Grade Groups Only) on Social and Related Sciences Tests, in Grade-equivalent Years

TEST	MULTIPLE-FACULTY	CONTROL
History	.92	.86
Peoples of other lands and times	.04	.49
Geography	1.10	.70
Social processes	.50	.59
Health and safety	.80	.09
Science	1.14	.61

The fact that the two testings were only six months apart instead of a year apart, as they were for the regular achievement tests administered in May of each year, tends to make the measurement of these gains less reliable. It will be noted that on the whole, larger gains were shown by the history, geography, and science tests than by the other three. Presumably this reflects greater emphasis on these subjects at this particular grade level than on the subjects "peoples of other lands and times," "social processes," and "health and safety." The results, therefore, must be interpreted in the light of their somewhat limited reliability and validity.

On four of the six tests in the Social and Related Sciences battery the mean gain of the groups in the multiple-faculty category was greater than that of the groups in the control category, whereas on two of the tests it was smaller. One of the positive and one of the negative differences, when evaluated by analysis of variance, were found to be statistically significant. Little importance, however, can be attached to either result for reasons explained above. The general trend of the results of the Social and Related Sciences tests would seem to support the view that in general the progress of the pupils in the multiple-faculty groups in the field covered by the tests was as much as or more than that of the pupils in the control groups.

These findings tend to confirm those based on the regularly given achievement tests.

The difficulties in the measurement of achievement gains are rather formidable, and for this reason a result that might otherwise be deemed highly favorable to the multiple-faculty-and-assistant plan often cannot be shown to be statistically significant even though an improvement of similar degree would be regarded as having substantial educational significance. For example, the comparisons of the multiple-faculty and control groups on the tests of English and grammar, geography, and science in each case show differences in favor of the multiple-faculty that would be of great educational interest if it could be stated with sufficient confidence that such differences resulted from the experimental factor and not from other causes. The general trend of the results from all the achievement tests indicates that the experimental conditions probably did not impede pupil learning and may have tended to promote it.

Effect on Pupil Work Habits and Social Adjustment

Although the effects of the previously described experimental arrangements may have been beneficial, or at least not harmful, to pupils when measured in terms of achievement-test results only, the question of how they affected pupils individually and socially in terms of such factors as sense of security, social acceptance, or work habits remains to be considered. An endeavor to obtain dependable answers to these questions was made, although the limitations of teacher and pupil time that could be devoted to such an inquiry in addition to many extra demands upon them for other information to be used in evaluation precluded an elaborate approach to this topic.

In evaluating the results of our investigations of pupil work habits and social adjustment, we have confined the comparison to teachers to whom some kind of helper—whether an assistant or a "fellow"—was assigned as one category, and unassisted teachers who were judged to be equally competent and whose teaching assignments were comparable as the other (control) category. Data

Teacher, children and assistant all help report daily attendance.

Pupils find in the assistant an interested listener.

were collected in May and June 1957 and refer to the class groups of the 1956–57 school year.

Teachers in grades 3, 4, and 5 who had the services of either assistants or fellows were asked to rate their pupils on the efficiency of their school work habits on a five-point scale. A set of control teachers was asked to use the same scale. The comparison, made in terms of the proportion of the pupils in each group receiving ratings below the middle position on the scale, showed that the aided teachers thought more highly of their pupils' work habits than the control teachers did of theirs. The difference was found to be statistically significant.

Pupils were also rated by their teachers for over-all emotional adjustment. On this scale the difference, though larger than the one for work habits and in the same direction, is less reliable because of the greater spread of the percentages averaged. It seems that the aided teachers thought of fewer of their pupils as being below average in over-all adjustment, but the possibility that the difference may be due to sampling error cannot confidently be set aside.

Teacher ratings are not entirely convincing descriptions of pupils because they can show only how the teachers themselves respond to their pupils in rating them. In view of this fact it was thought that sociometric data might provide a better measure of adjustment and would certainly provide a second and independent measure as a cross-check on the validity of the teacher ratings. If being frequently chosen by classmates is roughly equivalent to being well adjusted as judged by the teacher, then the more objective sociometric scores would tend to corroborate the unavoidably subjective ratings. And if the comparison of the aided with the control teachers on the basis of sociometric scores tends to confirm the findings based on teacher ratings, then greater confidence may be placed in the results.

For the twelve aided teachers the teachers' ratings for emotional adjustment were correlated with the number of times pupils were chosen by classmates. The coefficients of correlation were .73, .49, .63, .52, .46, .65, .41, .50, .44, .69, .68, and .52, the average being .56. Although these findings do not completely validate the teacher

ratings, they do justify the belief that these are not merely subjective reactions but do in fact reflect the actual status of pupils to a considerable extent.

When the percentage of pupils who were seldom chosen by classmates in the aided groups was compared with the percentage seldom chosen by classmates in the control groups, an arbitrary number of choices having been selected as a cut-off point, the difference was slightly favorable to the aided groups (proportionately fewer pupils were socially isolated) but the difference was not a reliable one. The fact that two independent measures of emotional adjustment yielded similar results, however, is of itself an indication of their credibility. Although the evidence that the use of teacher assistants tended to promote the emotional adjustment of pupils is not unshakable, there is clearly no evidence at all of the contrary effect.

Evaluation by School Principals

At the end of the school years 1955–56 and 1956–57 general evaluative reports on the assistant program were prepared by each of the principals in whose schools the assistants had worked. They were based on an outline provided by the staff of the study. The first item on the outline was "Effect on pupils—(a) individuals, (b) groups." The sections of two of the principals' reports dealing with this topic are given below:[9]

Our assistant, Miss ——, has been very helpful, not only in the Grade 6 class bracket, but in the "whole-school" situation. Her help has been most beneficial to [the teacher] while the latter has been acting as "Head Teacher" in my absence. When problems arose where [the teacher] would have to leave her room to answer telephone calls, take care of a sick child, register new entrants or any emergency, a nod to [the assistant] would mean for her to "take over" until she returned. While [the assistant], because of inexperience could not control the class as a regular teacher could, she was "on the spot" to send for help when it was needed.

[The assistant] is respected by all individuals in the class. She gave

[9] For evaluations by school principals of all schools involved in the program see the unabridged Report.

individual and group help under the guidance of the regular classroom teacher. All year she has been special instructor for an Italian-born fourteen-year-old girl who just came to our school from Italy. Working with the foreign-born is time-consuming and certainly our assistant saved the regular teacher hours of instruction. She has worked with other individuals who needed more help than a regular teacher could possibly have given.

[The assistant] was most helpful in class committee work. She was especially helpful in getting out the class newspaper, in poster contests and on class trips.

Individual pupils— By removing the top Grade 3 and top Grade 4 groups, we were able to do more for the children this past year. Since most of the top groups stayed with their own teachers for reading, they retained a greater sense of security and their work was better correlated in the classroom. These pupils were more of a challenge to each other than they would have been to the slower pupils. As a result, four of [one teacher's] Grade 3 pupils (2 boys and 2 girls) were accelerated to Grade 5 in September, 1957. Since the other two groups were about evenly divided in ability, the tops of these groups still provided a challenge to the slower pupils.

From the groups set up, pupils in the two groups read with pupils on their levels of reading ability without crossing grade lines. The same was true in spelling.

The teachers to whom the lowest groups were assigned did excellent work in helping these pupils to achieve.

Groups— Group work was carried on by whole grades in social studies or science—entire Grade 3 and Grade 4. One teacher presented a topic, such as "The French in the New World." Then pupils worked in homerooms with their teachers and aides, and after two weeks the group went together for the culmination. At first we tried the auditorium or cafeteria for the large group meetings. These proved too large for children to be heard adequately. The closeness of a homeroom with everyone crowded in it was more satisfactory for good response. Sometimes, for the culmination, pupils went from room to room to see displays which had been prepared.

The science lessons [with combined groups] were satisfactory only when films or filmstrips were used for discussion.

The music groups which met weekly formed the more spectacular part of our program and here we crossed grade lines. They included

folk dancing, square dancing, music appreciation, rhythm band, and glee club. Except for glee club, pupils changed groups every four weeks. A number of assembly programs were prepared from these group activities.

One important result which I attribute to our set-up of last year is the fact that the two Grade 5 teachers find their classes with no scholastic or behavior problems this year. These pupils were subjected to our project for two years and were mature enough to profit by it.

Evaluation by Participating Teachers

The participating teachers were asked at various times to consider the merits and shortcomings of whatever type of experimental situation they were directly involved in, and their reports were called for in various forms. Many of the questions to which the answers of the participating teachers were sought had to do in some way with the effects of the experimental program upon themselves or upon their jobs. But closely related to these are the teachers' perceptions of how well or badly their pupils responded to the conditions provided under the experimental program.

Space will not permit the inclusion in this report of all evaluative material prepared by the cooperating teachers on the subject of pupils. A summary, however, is provided by teacher responses, in a written, year-end report, to the following general question: "From the point of view of effect on pupils' learning and their general welfare what do you consider to be the net gain or loss in general accomplishment under the experimental situation as compared with a normal teaching situation with a group of average size?" Not all the teachers answered this question, but the complete replies of those who did are given, with minor editing, below:

> With a group of average size, more actual teaching would be going on. The helper is especially valuable in the social adjustment of the children as well as their emotional patterns of growth. There are so many occasions where children require the teacher's guidance immediately but have to wait until the teacher is free to give it to them. With [the assistant] working at this, frustrating experiences are bound to lessen.

> It is very difficult to ascertain the net gain or loss in general accom-

plishment. Certainly it was a gain, as I see it. As I look back, this is the first year that I was able to complete the arithmetic requirement for Group I. This is definitely a gain. Also, my first group completed the reading requirement in due time. It was no last minute dashing through the last few stories. Somehow I feel that our spelling deserves commendation. My class as a whole has shown remarkable growth in word attack.

Teacher has been able to really teach and not have to assign busy work in order to keep up with all the nonteaching activities that normally have to be done during school time. I find that I have covered more material in all subjects this year as compared to last year. I have been able to give more individual help in the classroom because of the extra materials that have been made up for me because of [the assistant's] clerical help.

Loss— in some classes a few children became dependent on the assistant and waited to be helped.

Gain— immediate check on workbook corrected errors quickly; absent children did not get behind because the assistant helped them with the workbook work in reading they missed; in many cases a child who was sick or disturbed was given quick attention so that many problems were avoided. Our music program was the highlight of our multiple-teacher program and the children developed a great deal and had much pleasure.

Perhaps achievement in reading and spelling has been greater because of the fact that we did not have such a wide spread of abilities and could concentrate on fewer reading levels.

The slow children received a great deal more help than I would have been able to give them in the subjects they were failing in, such as reading, arithmetic, spelling. All the children who worked with the helper were up to grade in all subjects when the achievement tests were given in June.

The group of children I had last year was the slow group. Having a helper gave me much more time to work with these children and I got a great feeling of satisfaction when I found they were all up to grade in June. This would never have been possible with such a large group without extra help.

As you know, the helper I had last year had had nearly two years teacher training and was intending to be a future teacher, so the training she

received was very valuable to her. I was able to allow her to do much more work with the children than a girl without this experience could have done.

Evaluation by Parents

There were two reasons for asking parents to participate in the evaluation of the effects of the experimental program on pupils: first, they were in a particularly good position to estimate their children's reactions to their school situation in general, especially in case of any serious maladjustment; and secondly, the parents' own opinions about the program were considered relevant as part of the total evaluation. The principals of each of the schools where assistants were employed sent questionnaires to the parents of all children involved in the experimental program early in June 1957. Returns were received from 206 parents, representing approximately two-thirds of the families whose children were in experimental classes.

Although several of the questions on the questionnaires could be answered "yes" or "no," provision was made for written-in comments as well. A question calling for the parent's written over-all opinion was also included and space was provided for any additional comments the parent cared to make. As a result, a considerable quantity of opinion material was obtained—far too much to be incorporated in this report. Only the "yes" and "no" answers and a brief comment on the written answers accompanying them will be presented here.

The number of "yes," "no," "uncertain," or "no answer" responses to each of the four questions that could be answered in this manner, and the percentage of each to the total number of replies, is given below:

1. Does your child accept the idea of a teacher assistant?

RESPONSE	NUMBER	PERCENTAGE
Yes	193	93.7
No	2	1.0
Uncertain or no answer	11	5.3

Assistants are at hand to give help when it is needed.

The assistant does much of the coming and going a teacher can ill afford to do herself, yet cannot always have pupils do alone.

2. Was there a pleasant relationship between the assistant and the child?

RESPONSE	NUMBER	PERCENTAGE
Yes	193	93.7
No	1	0.5
Uncertain or no answer	12	5.8

3. Did the fact that there was a teacher and an assistant in the same room confuse your child?

RESPONSE	NUMBER	PERCENTAGE
Yes	5	2.4
No	188	91.3
Uncertain or no answer	13	6.3

4. Did the addition of a teaching assistant take away from the status of a regular classroom teacher in the eyes of your child?

RESPONSE	NUMBER	PERCENTAGE
Yes	5	2.4
No	188	91.3
Uncertain or no answer	13	6.3

In general the written comments accompanying the above questions supported the opinions expressed, showing that they were not perfunctory responses. They do not, however, add a great deal to the picture of children's reactions to the experimental situation as perceived by their parents.

The general conclusion that parents, with few exceptions, were favorably disposed to the program at the end of its second year of operation seems entirely warranted. Some warmly supported it. Others gave their qualified approval. A few were critical. A few felt they were too poorly informed to express an opinion. None made any direct objection or complaint or tried in any way to have

a child removed from an experimental class. The evaluation by parents thus tends to confirm those by school principals and by teachers to the effect that the experimental program was generally beneficial to pupils.

B. Effect on Teacher Assistants

Relation to Objectives of the Study

If the job of assisting regular classroom teachers is to gain a recognized place in any general program for the staffing of elementary schools, the job itself must be sufficiently rewarding to attract properly qualified people and keep them employed. One of the objects of the present inquiry was to determine whether, under the conditions that could be provided in Fairfield, the assistants actually employed would find real satisfaction in their jobs, would wish to continue beyond the experimental period if the opportunity were provided, and would be perceived by others as benefiting from their training and work assignments.

Evaluation by School Principals

As part of a general written evaluation of the assistant program the principal of each school where one or more assistants were assigned was asked to discuss the questions "What values to the assistant . . . do you think the experimental situation provides?" and "Any limitations or shortcomings?" Two of the replies are given below:

> The whole program is a very valuable one. In our case [the teacher] gave [the assistant] the kind of guidance suited to the latter's personality. The experiment provided a rich experience for our assistant on the spot, that training schools could not possibly accomplish.
>
> The limitations and shortcomings are as follows: this type of work provides an incentive to further study in this field where the scholastic background shows an inadequacy for such study.

> The assistants have developed in their work. They learned about children physically, mentally, and socially, and acquired patience in working with them. They learned to handle emergencies well. Since they didn't want to be teachers, they realized the scope of the job.

[One assistant] would have liked more professional work to do but wasn't able to take it because of lack of training. I believe she realized the scope of the job but wasn't quite willing to accept it. She discovered that she had art ability.

Both assistants learned that there was much more to teaching than they had thought before they became so close to it. They learned to do good bulletin board arrangements and established routine.

Shortcomings of the aides might be said to be assuming too much responsibility when talking to parents and not always taking the responsibility expected from them at other times.

Evaluation by Participating Teachers

An even closer view of the impact of the job experience upon the assistants themselves is that provided by the teachers to whom they were assigned and under whose immediate direction they worked. These teachers reported informally to the staff of the Study from time to time as they were visited in their classrooms, and also participated in organized evaluative discussions that were held. At the end of the year they were asked to write answers to a series of questions concerning their experience in the use of assistants. One of the questions was, "From the point of view of the value of the experience to your helper, what is your evaluation of the experimental situation?" The replies are given below:

Tremendous! When [the assistant] came to us she had very little to offer as a professional person. Because of her keen observations throughout the school and her firm desire to become a teacher she adusted to her new job nicely and made every effort to broaden herself, even to the extent of reading professional teaching material. She has shown growth socially, emotionally, and intellectually.

She has grown socially and (may I say) academically. It has really been an education for her. Many times she could have been seen listening to our discussions in a learning attitude.

It has given [the assistant] a chance to work with children though not always directly. She has had many interesting experiences and has often said she didn't get as tired and bored as she did behind a ten-cent store counter. She has enjoyed the company of the teachers as well as the company and antics of the children of all age groups. She also has developed an appreciation for the teaching profession, though she

is not planning to pursue teaching as a career. She has gained a lot of satisfaction from the successful tasks she has performed.

I feel the teacher-aides understand the situation in the classroom much better. They appreciated new techniques and methods they hadn't had. They realize the amount of work a teacher does—that connected and not connected with teaching.

My assistant learned a great deal about the social, physical, and mental aspects of the children. She herself grew socially and became more reliable. However, she did not decide that teaching was what she wanted to do.

I feel that my helper has shown much improvement and growth. She shows more initiative and will even suggest things which need to be done. I have enoyed working with her.

Evaluation by the Assistants

A final and highly important source of information about the effect of the program upon the assistants is the assistants themselves. The five assistants who remained at the end of the second year, three of whom had served as assistants for two years and the other two of whom had served for one year, were interviewed. All said they were happy in this type of work. They felt they had learned much from their jobs. Some of their comments were:

It has helped me to understand children much, much better.

Will be a better parent; sees teacher point of view better.

Meet professional people more readily; have learned how to handle children more easily and effectively; appreciate school more since having been exposed to the teaching end of it.

In comparing the advantages with the disadvantages of the job, two of the five assistants mentioned the pay as a disadvantage, two did not mention any disadvantage, and one mentioned lack of training and "lack of *feeling* of responsibility in the position of a teacher's aide" arising out of inability to handle some types of disciplinary problems. On the subject of pay the assistants' opinions were diverse: two thought it less than they might be earning elsewhere; another agreed but believed the training was worth the difference; one thought that considering the hours, the pay was

adequate; and one said that the pay was adequate, "but a raise in salary would be a benefit."

The following replies were given to the question, "What do your friends think about it?"

All very interested in job and ask many questions. Seem to be many girls who would be interested in work.

My two closest friends are also assistants, and they also enjoy their jobs! My other friends think it's a wonderful job to get into.

All her friends are assistants and are enthusiastic about it.

Exchange ideas with friends at college.

They don't understand it at all. They look up to her now. They do not see why just five were chosen and why those particular ones.

Continuance in Employment

The five people who completed their assignments as teacher assistants in the experimental program of the Yale-Fairfield Study in June 1957 were engaged for similar work for the following year under the regular school administration. They had previously shown their eagerness to continue this work and appeared very happy to have the opportunity to do so. The willingness of the school administration to provide for such jobs would appear to reflect considerable satisfaction with the type of position that actually developed and with the services rendered by these particular people in their work as assistants.

C. Effect on Teachers

Questions and Sources of Information

The effect of the use of an assistant on the classroom teacher was considered to be an important phase of the program and one which the Yale-Fairfield Study should investigate. Data from several sources were examined in an effort to arrive at answers to the following questions:

What effect does the employment of teacher assistants have on the tasks of the teacher to whom such aid is given?

Does the pattern of working with an assistant involve more time and energy on the part of the teacher who must plan and supervise the assistant's work? If this is so, do the assistant's services to the teacher compensate for the extra work involved?

Do the services of the assistants have any direct influence on the curriculum provided for children and therefore affect the nature and scope of the teachers' activities?

Does the use of assistants contribute to the morale of teachers responsible for larger-than-normal class groups?

Does the classroom teacher find the assistant a threat to the status of the profession or a means toward the greater professionalization of the teacher's own work?

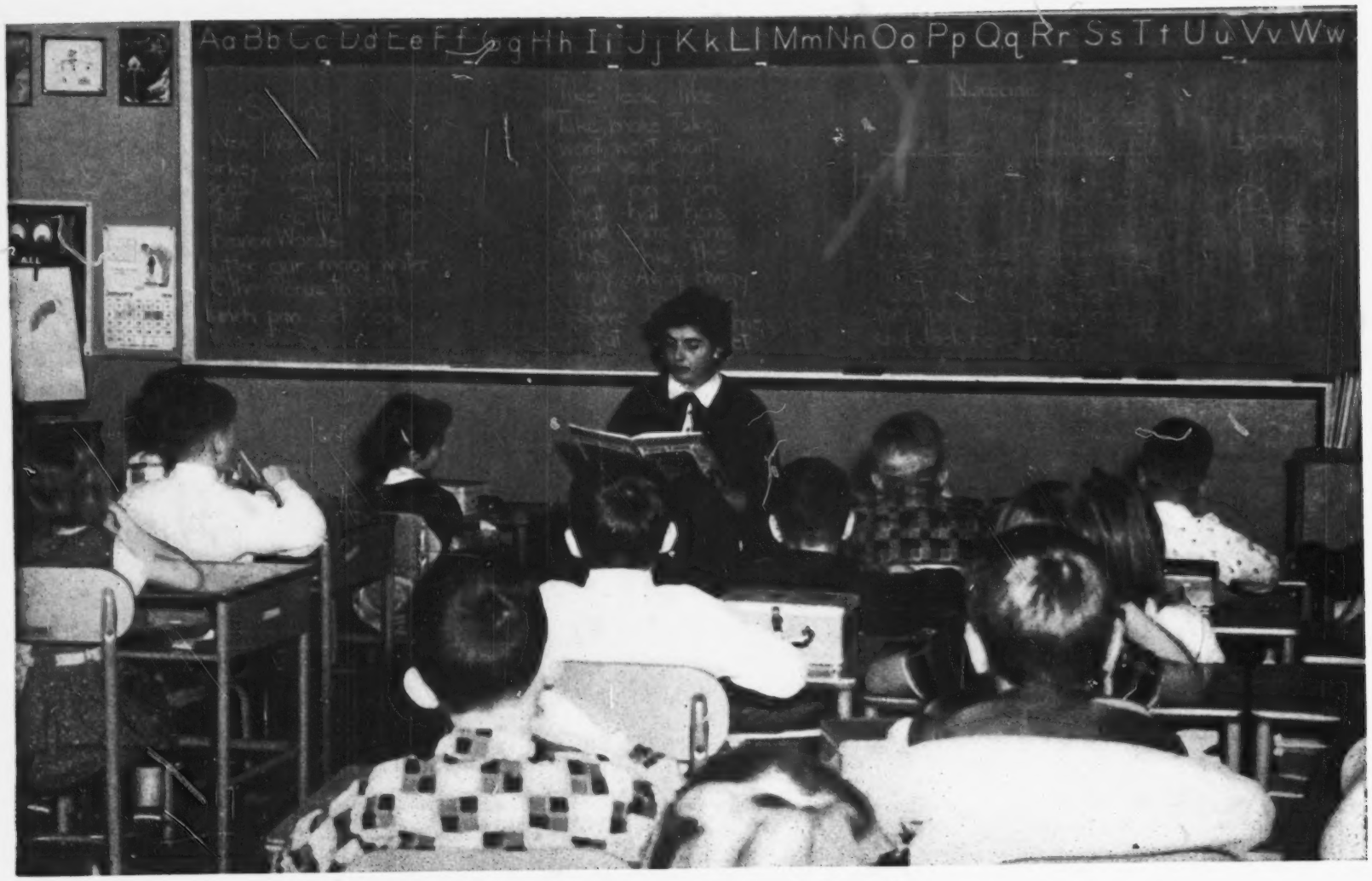
In the study of the use of assistants carried on for 1955–56 and 1956–57 in Fairfield it was assumed that teachers engaged in the experiment might discover to what extent the delegation of certain tasks to assistants affected the general nature of their own work and their own job satisfaction. Information concerning this was collected as the project developed both from the teachers involved and from the administrators in schools where assistants were assigned. Teachers met with members of the staff of the Study to discuss the patterns of use of assistants as they developed. They also prepared written reports of various kinds, which are described more fully elsewhere.

In the school year 1957–58 those teachers who in the preceding two-year period had worked either with the assistants described in this report or with teaching "fellows," whose work will be described in another report, were asked to reflect upon the experience and to indicate their agreement or disagreement with fourteen statements that were designed to represent varying points of view. The results of this survey of teacher opinion tend to summarize the information derived from other sources and are presented below.

Teacher Reactions to Opinion Statements

Reactions to all or some of the opinion statements were secured from twenty-four elementary classroom teachers. The fourteen statements and the number of respondents expressing agreement or disagreement are presented below, together with comments re-

Pupils with special learning problems are given extra attention.



The assistant may take over for snack time and story.

flecting both the majority and the dissenting minority opinions, the latter being starred.

1. As a teacher I found the service of the assistant both useful and enjoyable and I would be ready to work with an assistant again.
   Agree 23 Disagree 1*
   Remarks: "I would welcome a full-time assignment if and when I have a large class again."
   *"My assistant was very cooperative and helpful but I do prefer working alone."

2. An assistant would be of value to me when class size exceeds —— but not with smaller groups.
   The responses here indicated that teachers in the primary grades felt assistants would be of value when group size exceeds 20 (three responses) or 25 (two responses). Teachers in the intermediate grades indicated that assistants could be of value when groups exceeded 25 (five responses) or 30 (eight responses).

3. An assistant would be desirable in any teaching situation regardless of group size.
   Agree 9* Disagree 15
   Remarks: *"I would find an assistant of value with *any* size group —as most assistants provide added opportunities for any group."
   "An assistant would be a luxury in a small group."

4. The presence of nonprofessional personnel, such as assistants, in the classroom is undesirable and disturbing to teachers and pupils.
   Agree 0 Disagree 23 Uncertain 1*
   Remarks: "The children appreciated her position as helper, and at the same time realized her limitations, so that they never lost sight of the teacher's role."
   *"The teacher develops a certain rapport with the class which the presence of a third person disturbs."

5. The services provided by the assistant tend to make classroom teaching a more highly professionalized job, since the teacher spends more time teaching and less on the routines of the classroom.
   Agree 21 Disagree 3*
   Remarks: "100% true."
   *"Routines can be used as learning situations for children."

6. The teacher's activities cannot be divided into professional and nonprofessional tasks. Everything is important and nothing can be safely delegated.

Agree 2* Disagree 22

Remarks: *"Perhaps all are professional in that they relate to teaching but certainly some can be safely delegated."

"I feel that there are no unimportant aspects of teaching but I also think that there are many duties which can be delegated."

7. I found teaching a happier and more satisfying job when time-consuming, nonteaching, routine tasks were delegated to an assistant.

Agree 18 Disagree 2* Uncertain 4

Remarks: "More time to think about what techniques work best, what plans are not too well carried out."

*"I found teaching happier when I had a smaller group of children."

8. The curriculum for children at the grade level where I teach can be made richer and more effective through the services an assistant can render.

Agree 21 Disagree 2* Uncertain 1

Remarks: "She can supplement the work of the teacher. It is surprising how many new ideas she can come up with in the process of working on projects. Sharing her hobbies can also be a source of enrichment."

*"Only indirectly."

9. Employing assistants in the elementary school classrooms is a threat to the professional status of teachers.

Agree 2* Disagree 21 Uncertain 1

Remarks: *"It could be if we are not careful in delegating their duties."

"If the purpose is merely to save money and decrease the number of qualified teachers employed this could be a threat. If the purpose is to provide a better education for children then there is no threat. Having an assistant does not mean that any teacher can adequately handle fifty pupils."

10. Planning, guiding, and supervising the work of an assistant means substantially more work for the teacher, and the benefits derived are not enough to compensate for this additional burden.

Agree 2 Disagree 21 Uncertain 1*

Remarks: "It does involve more work but the results are worth it if the assistant is efficient and adaptable."

*"It was hard enough for me as a beginning teacher to make my own plans—and yet I did derive great benefits from the aide."

11. Because of the assistant's services, pupils in my classes made better progress both scholastically and in social adjustment than might have been the case in such a large group.

    Agree 17 Disagree 2 Uncertain 5*

    Remarks: "Social growth was evident—children were made more secure through special attention."

    *"Much of what the assistant did would have been done by the teacher if need be. Social adjustment was improved."

12. The assistant assigned to me was adequate in intelligence, adaptability, and resourcefulness to meet the demands placed upon her.

    Agree 21 Disagree 2* Uncertain 1

    Remarks: "This girl should prepare for teaching."

    *"There were limitations to the kind of assignment the assistant could assume. I had to work within these limitations and supervise."

13. The assistant assigned me was able to learn necessary skills on the job and found this kind of employment satisfying.

    Agree 22 Disagree 1 Uncertain 1*

    Remarks: "She was willing, happy, and appreciative and she grew socially, too!"

    *"It might have been enjoyable but perhaps it did not pay enough, since she left for another job."

14. Only teachers of competence and with experience in their job can make efficient and safe use of assistants.

    Agree 17 Disagree 5* Uncertain 2

    Remarks: "Beginning teachers in a school might share an assistant for collecting money, making charts, duplicating materials, etc., but most beginning teachers feel more secure when they are left alone in the classroom. There is enough newness to the job without adding an assistant to it."

    *"This depends on the teacher and the assistant. A beginning teacher might be helped if routines were delegated and she could concentrate solely on planning and teaching."

Summary

In summary the responses imply that teachers for the most part felt a high degree of satisfaction in working in this program and would be willing to work with an assistant again.

III

GENERAL CONCLUSIONS

A. Summary of the Findings

Feasibility of Initiating a Program of Using Teacher Assistants

The experimental program in the use of teacher assistants in Fairfield was possible because of the willingness of the superintendent of schools to initiate experimentation, the willingness of the parents, the Fairfield School Board, and the State Board of Education to permit it to be carried out, and the willingness of teachers to cooperate in it. The staff of the Yale-Fairfield Study did not begin its work until after such support was assured. A further circumstance that greatly facilitated the program was financial support from the Fund for the Advancement of Education. Although similar programs without outside financial aid are thought to be feasible, the careful and extensive evaluation work desired in a project regarded as being primarily experimental and the publication and circulation of a full report on it could be done much better because of the support by the Fund. If the ordinary operating expenses of a comparable program in which teacher assistants were used were borne entirely by the local school system, it is estimated that neither an increase nor a decrease in costs would result.

Recruitment of Assistants

In the present experiment recruitment was limited to recent high school graduates not intending to enter college. As it turned out, only girls were chosen as assistants, and hence no information about

The assistant shares children's pleasure in acting out "Three Billy Goats Gruff."

An assistant helps supervise playground games.

the feasibility of using boys in such work can be reported. One of the problems under investigation was that of the availability of suitable applicants. Although in the present instance recruitment had to be completed within a short period, a sufficient number of applicants able to meet the qualifications established was found. They were satisfactory in personal and moral characteristics but quite low in previous academic achievement. During the ensuing two years a considerable number of other applicants appeared whose academic background was better, though active recruitment was not then being carried on. With reasonable time it should be possible to recruit considerable numbers of qualified persons for jobs as teacher assistants from among recent high school graduates not planning to attend college.

Selection of Cooperating Teachers

General teaching competence, willingness to use an assistant, and the number of pupils in the class group were the principal criteria by which teachers were selected in the present experiment. Except in the multiple-faculty arrangement, where specialists, experienced teachers, beginning teachers, and assistants worked as a team, all teachers to whom assistants were assigned had three years' teaching experience or more, and only teachers who were willing to experiment in the use of an assistant were asked to participate. The results of this experiment, therefore, would not be applicable to situations in which assistants were assigned to teachers regardless of their desires in the matter or regardless of their experience. Class sizes were generally from three to ten pupils larger than usual in comparable grades in the Fairfield system. Some of the multiple-faculty groups, however (where the assistant's services were shared), were normal-sized groups. The selection of teachers did not present serious difficulties. Many more were willing to cooperate than could actually be used, the only problem being that of obtaining the best combination of circumstances for the purposes of the experiment.

Feasibility of Delegating Certain Tasks of the Classroom Teacher

Teaching was found to comprise a very large number and great variety of specific tasks necessary to the accomplishment of several

basic functions. Many of the specific tasks require much professional skill and knowledge or cannot easily be separated from other activities, but a fairly large number remain, for which less professional preparation is required and which can be performed separately. *A priori* determination of "teaching" and "nonteaching" duties does not correspond very well with what responsible teachers will actually delegate when given a free hand. Tasks actually delegated included many teaching activities of a fairly easy kind. Just what tasks should be delegated can be determined by carefully selected teachers on the basis of their own abilities, those of their assistants, pupil needs, and other circumstances in the teaching situation. In the present experiment much but not all of the clerical work ordinarily performed by teachers was delegated to the assistants. Clerical tasks in which a large element of judgment was involved generally were retained. Housekeeping is a minor item in terms of its demand on teachers' time, but one that can be delegated entirely to assistants or to pupils. Supervision of children outside of the classroom was delegated only in part: teachers remained in charge of playgrounds, for instance, with the assistant helping. Hall duty, bus duty, and lunchroom duty were often assigned to assistants. Among the instructional tasks commonly entrusted to assistants were helping individual pupils, especially when they had missed some days of school; reading to groups; helping with art work and with bulletin-board and other displays; operating audio-visual equipment; and working with groups in the library. Although assistants participated in planning, they apparently could not relieve teachers of much work in this area. On the contrary, the teachers reported that more planning than usual was required.

In-Service Education and Training of Assistants

It was found that under the conditions of the present experiment teacher assistants could be included in teacher in-service groups for instruction in various specific skills, such as first aid, operation of audio-visual equipment, recreational leadership, art media and techniques, etc. No attempt was made to include them in certain other courses for which professional background is necessary. A general, integrative course for assistants was conducted successfully on the

seminar plan despite the relatively low academic status of the assistants.

Effect on Pupils

In general the progress in achievement in the subject areas in which tests were administered was somewhat greater in the groups where assistants were used than in control groups. Most of the differences in favor of the assisted groups, however, cannot be generalized beyond the present experiment. Possible exceptions are fourth-grade reading, arithmetic, "total achievement" (a composite measure), and health and safety, in which the advantage of the assisted groups was statistically significant; a test on "peoples of other lands and times" showed a statistically significant difference in favor of the control group. The tentative conclusion that the experimental conditions probably did not impede pupil learning in general and may have tended to promote it was drawn from the achievement-test results.

The teachers to whom assistants or fellows were assigned rated fewer of their pupils at the low end of a scale of work habits and fewer at the low end of a scale of social adjustment than did the teachers of control groups. The difference in ratings of work habits was statistically significant, whereas that of social adjustment did not quite reach significance. Teacher ratings of social adjustment were found to be significantly correlated with frequency of being chosen when a sociometric instrument was used. Fewer of the pupils in the groups where assistants or fellows were assigned were seldom chosen by their classmates than in the control groups.

Thoughtful evaluations of the experimental program by school principals and participating teachers are included in the body of the report. While neither group was entirely uncritical in its appraisal, they both stressed the positive values of the multiple-faculty-and-assistant plan. Possible adverse effects were noted, but in no case was the experimental program found unacceptable.

A sampling of parental opinion revealed that parents were overwhelmingly favorable to the use of assistants in the classroom. Remarkably few criticisms were elicited. In some cases the approval was qualified, but in many others it was apparently categorical and

enthusiastic. Among the typical qualifications were that assistants should be used only if classes were to be unusually large or in preference to having double sessions.

Effect on Assistants

As a group the assistants reported that they were happy in this type of work. Five out of seven people recruited for jobs as assistants wanted to continue beyond the two-year period of the experiment. (They were all re-employed by the regular school administration.) The other two left because of lack of continuity of employment through the summer. One of these expressed a strong liking for the work and might have been re-employed if she had been available.

The earnings of the assistants were about on a par with what they might have earned elsewhere. They were from one-third to one-half as much as the salaries of certified teachers. The opportunities for self-improvement, preparation for parenthood, and better command of school subjects than they got while in school themselves were considered particularly beneficial by the assistants, and also by their teachers, friends, and associates.

Effect on Teachers

Substantial amounts of time were saved by teachers in clerical work, routine classroom activities, and certain easy instructional tasks. Minor amounts of time were saved in housekeeping, and supervision outside the classroom. Some additional time was required in planning. Because of the time saved and because of greater protection from interruptions, teachers were able to give more individual attention to pupils, use more specially prepared material, carry the instruction further in some subject areas, provide better for individual differences by better grouping, and spend more time on curriculum enrichment.

Most teachers found satisfaction in the use of assistants. They were pleased with the opportunity to delegate routine and clerical tasks and with the greater freedom from interruptions and did not mind the extra planning. Some, however, would still prefer working alone with a smaller group to having an assistant and working with a larger group. Division of children's loyalties was not a prob-

lem with them. They were concerned, however, about the need to prevent over-dependence on the part of some children, and about their own need to know all pupils intimately, which is more difficult in a large group.

The professional status of the teacher was not adversely affected. In this experiment no increase in pay was given teachers working with assistants and therefore any advance in professional status was a matter of increased experience and perhaps prestige rather than a matter of immediate tangible rewards. Teachers generally considered, however, that even under these conditions, having an assistant would tend to augment, not diminish, their professional position, provided that the use of the assistants was not allowed to supplant the use of qualified teachers in any task for which professional competency is needed.

B. Conclusions

As has been pointed out elsewhere in this report, the present study of the use of teacher assistants did not produce incontrovertible evidence to warrant conclusions which could be generalized for universal practice on all the questions involved. The study did, however, greatly extend our knowledge and did produce sufficient evidence to justify cautious opinions with respect to most of the claims for the use of assistants as well as reactions to the criticisms of the plan found in the literature and summarized in Chapter I of this report.

Furthermore, certain recommendations can now be made for the guidance of school authorities who are interested in inaugurating a program of instructional staffing which includes the use of teacher assistants. The following observations are made by the Director of the Study.

Reactions to Claims Made for the Use of Teacher Assistants

Claim 1. It relieves teachers of routine, nonprofessional duties so they will have more time for teaching: thus making the job more attractive to capable people and spreading the competencies of master teachers for the benefit of more pupils.

Reaction: There is abundant evidence in support of this claim.

It does not follow automatically that these results will be secured. Assistants must be well trained and judiciously assigned, and definite plans must be made to extend the services of teachers. It remains to be seen whether modification of the teacher's job will attract more capable people into the field of teaching. There are promising trends in this direction.

Claim 2. It contributes to the solution of the teacher shortage problem by permitting the use of larger classes and by promoting recruitment of more teachers both because of better teaching conditions and because of interest aroused in professional teacher preparation on the part of assistants.

Reaction: There is no question about the validity of this claim. There is a point, yet to be determined, beyond which pupil-teacher ratio cannot be increased with safety, but within limits (again, yet to be determined and perhaps varying from situation to situation) class size can be increased without adversely affecting pupil achievement. With the flexibility provided when assistants are employed, regrouping to meet special learning needs can be done, thus obtaining the advantages of both large and small learning groups. The multiple-faculty plan described above, p. 6, is a case in point.

Claim 3. It improves the quality of teaching by program enrichment and by providing opportunity for more attention to individuals and small groups of pupils.

Reaction: This is undoubtedly a true claim. Many instances can be cited in this experiment where the program has been enriched, qualitatively and quantitatively, because of the presence of an assistant. Most of the opportunities for enrichment were possible because of the increased time teachers had for developing the instructional program. In numerous instances the program was enriched because of the special talents of the assistants themselves. The matter of special personal talents of assistants is one to be considered when they are selected.

Claim 4. It improves the quality of preparation for teaching by making it possible for students to study child growth and learning, and school problems at first hand under the direction of skilled teachers while pursuing their college programs.

Assistants learned how to contribute to a friendly, happy atmosphere.

Assistants help with preparation and use of a wide variety of art media.

Reaction: Comment on this claim is reserved for a later stage in the Study. Another group of assistants is now in the last year of a four-year study devoted entirely to consideration of this claim. It is to be remarked, however, that the better qualified assistants have manifested a desire to prepare for teaching.

Claim 5. It is to be preferred to other alternatives such as double sessions when there is a teacher or a room shortage.

Reaction: This claim certainly reflects the opinion of school officers and teachers in Fairfield after experimenting with various plans. No effort was made in this study to evaluate alternative plans. It might well be that preference would vary from one situation to another depending upon individual circumstances.

Claim 6. It allows greater freedom for teaching and for more individual pupil activity.

Reaction: Evidence adequately supports this claim.

Claim 7. It improves the professional status of teachers by identifying professional tasks and encouraging teachers to specialize in them.

Reaction: The experiment was not of long enough duration to secure significant evidence relating to this claim. It can be said, however, that throughout the experimental period there was not the slightest indication that the presence of assistants challenged the status of the teachers. So far as it had any effect it tended to exalt the status of the teacher in the minds of pupils and parents. Other teachers considered that the assignment of an assistant was recognition of the high professional standing of the teacher involved. It should be acknowledged, however, that the indiscriminate assignment of assistants and excessive overcrowding of classes, particularly in an overt effort to reduce teaching budgets, would belittle teaching and, therefore, downgrade teachers professionally.

Comments on Controversial Questions

While the present study by no means resolves all the controversy concerning the use of teacher assistants, the Director, on the basis of careful observation of its operation, feels obligated to comment

on a number of the questions which have been raised. It should be emphasized that this study was very carefully managed. Haphazard procedures might produce different results.

1. *With respect to pupils does not the use of teacher assistants:*

a. produce frustrations because of the necessity of adjusting to two adult leaders? (*Comment:* No cases of frustration were observed nor were any reported by teachers or parents. In the organization and operation of the program care was taken to avoid any frustrating situations for pupils.)

b. develop dependence because of too much guidance and personal help? (*Comment:* Quite the opposite seemed to be the case. When pupils were ready for independent work, they were expected to do it. Assistants were cautioned against permitting pupils to become overdependent and teachers were vigilant in this matter. Independence and self-direction were emphasized.)

c. deny most pupils close association with skilled teachers? (*Comment:* There were some observable tendencies in this direction, but they were easily controlled. It is a point to be watched.)

d. lower standards of achievement and ideals of accomplishment? (*Comment:* Direct evidence in the body of the report answers this question with a firm negative.)

e. ignore motivation, use of readiness, maturation, development of critical thinking, development of ability to make value judgments, as well as many of the less tangible types of learning outcomes? (*Comment:* These possibilities exist here as they do in all teaching. There was just as much evidence that the presence of an assistant forestalled such neglect as that it augmented it. On such matters teachers must be forever vigilant.)

2. *With respect to teachers does not the use of teacher assistants:*

a. necessitate the use of much time in planning with the assistant which might better be used in working with pupils? (*Comment:* This varied considerably from teacher to teacher. It is hazardous to the point that some teachers by temperament should not attempt

to work with assistants. Some teachers, like other people, find it difficult to delegate anything.)

b. force adjustment of teachers to an adult personality as well as to many children in the classroom? (*Comment:* This is a real danger emphasizing the necessity of seeing to it that there is compatibility between teacher and assistant. In one instance in this experiment it was necessary to reassign the assistant because the teacher found it difficult to work effectively with her.)

c. deny opportunities for close association with pupils essential to the discharge of responsibilities to them? (*Comment:* This does not follow *per se* but careless teachers could permit the development of such a situation. No trouble arising from this source was observed or reported in this study.)

d. make it more difficult to create a climate for free inspired teaching? (*Comment:* An overly aggressive assistant insensitive to the importance of a good teaching climate could inhibit spontaneous creative activity on the part of the teacher. In this study no such problems developed. If anything, the reverse was true.)

e. challenge their professional status? (*Comment:* see reaction to claim 7, above.)

f. tempt them to an abdication of professional responsibilities? (*Comment:* A lazy, indifferent teacher could take advantage of the situation, but it is doubtful whether it would be any easier to do so with an assistant in the room. Because of the integrity of the teachers involved, no such problem arose in Fairfield.)

g. demand much more supervision from above? (*Comment:* There was no evidence favoring an affirmative answer to this question.)

h. promote an artificial distinction between teaching and non-teaching duties? (*Comment:* This is a matter to be reckoned with. See the discussion above, p. 9. See also the Yale-Fairfield Study of Elementary Teaching, *Report, 1954–55,* pp. 238–239.)

i. develop strain because of frequent incompatibility of teacher and assistant? (*Comment:* This is a very real possibility. Such incompatibility should not be permitted to exist. If the bases of the incompatibility cannot be discovered and eliminated, a reassignment should be made.)

3. *With respect to the program of studies and experiences, does not the use of teacher assistants:*

a. tend to formalize school activities and make school processes mechanical? (*Comment:* When teachers conceive of their job as mere management of the activities of children, this could happen. Assistants were naturally assigned to some of the more mechanical processes where professional judgment was not involved, but in no case was there a tendency to increase the number or unduly to emphasize such processes.)

b. limit the concept of teaching to mere instruction in textbook type of subject matter? (*Comment:* On the contrary the tendency was to enrich the program by supplementing texts. Teachers were freer and assistants helped in supplying non-textbook source materials.)

c. lower standards of accomplishment? (*Comment:* As the report reveals in preceding chapters standards in all cases were maintained.)

d. neglect the less tangible but extremely important types of learning? (*Comment:* Insofar as it was possible to measure intangibles, they were by no means neglected. See above, p. 22.

e. reduce pupil participation in educational activities? (*Comment:* While assistants in some instances assumed responsibility for certain activities formerly delegated to pupils, they used pupils in planning and executing bulletin board exhibits and other truly educative enterprises. It seemed that by being relieved of purely routine noneducative activities, pupils were permitted wider participation in those which contributed to their growth and development.)

4. *With respect to parents, will not the use of teacher assistants:*

a. raise questions as to the quality of instruction and guidance their children are getting? (*Comment:* In Fairfield this proved not to be the case. See above, p. 28.

5. *With respect to school administrators and boards of education, will not the use of teacher assistants:*

a. permit the overloading of classes so as to save money? (*Comment:* In Fairfield this was not done. It easily could happen where school officials are harassed by lack of funds or unwholesome political pressures. Here as elsewhere parents and teachers, the eternal guardians of children's welfare, should see to it that educational standards are maintained. Schemes of organization designed merely to "save money" often prove to be very expensive when evaluated in terms of the educational needs of children.)

b. promote building of larger classrooms in school buildings? (*Comment:* The optimum size of classrooms is still an open question. Modern schools demand variety rather than uniformity. To attempt to prevent the formation of large classes throughout the life of a school building by making the classrooms small is a dubious device to say the least. More schools are probably suffering today because classrooms are too small than because they are too large. Since economy and efficiency of instruction demand variation in class size, room size also should vary.)

c. permit neglect of standards of quality of education in behalf of economy of operation? (*Comment:* See comment 5a, above.)

The experience with the use of assistants in the Fairfield schools forces optimistic answers to the questions raised by critics of the plan. It is recognized that the lurking dangers implicit in the questions raised do exist in a very real way. The study does show, however, that if care is taken in the planning, and safeguards are provided, very satisfactory results can be obtained. Through mishandling, any organizational scheme may fail to produce desirable results. In some respects a plan involving the presence in classrooms of assistants who are not fully qualified to do professional teaching is particularly vulnerable to attack and susceptible to miscarriage. On the other hand, the Fairfield study shows clearly that with the careful selection of all participants, their proper assignment, and conscientious administration, assistants to teachers can be used to great advantage and without fear that damage will be done to standards of learning or personal relationships. With these conditions prevailing it can be concluded that:

1. There is a sufficient supply of capable people to serve as teacher assistants.

2. Assistants will prove acceptable to carefully selected teachers with larger-than-average[10] classes.

3. Pupils will make normal progress or better in larger-than-average classes and will be normally happy and secure in classes where there are assistants.

4. With proper orientation and guidance carefully selected assistants will learn their roles and will find deep satisfaction in their work.

5. Cooperating teachers will have more time to devote to the professional aspects of their jobs and will find great satisfaction in so doing.

6. Parents will accept the plan as a defensible effort to improve instruction in the elementary schools.

7. The cost of instruction in a school system employing assistants as they were used in this study will not be materially increased or decreased.

C. Recommendations

By way of summary and for emphasis the following recommendations are offered:

1. Care in the selection of assistants and their training for their jobs is just as important as care in the selection and training of teachers. It is desirable, therefore, to set up standards in advance and to proceed according to a plan designed to take into account the circumstances peculiar to each situation. For example, if assistants are employed as a means of recruitment for teaching, a very different type of person will be needed than would be the case if assistants are to make a career of the job. Assistants with special talents needed to meet this situation should be sought.

2. Assistants should never be forced upon unwilling teachers. The ability to delegate and to share responsibilities as well as personal temperament are extremely important factors to be considered.

3. The work of teachers and assistants should be so planned that each will be able to get personal satisfaction. The plan is not likely to be a success if assistants are thought of as mere lackeys.

4. It must not be assumed that the mere presence of assistants in the classroom will step up the professional services of the teacher. Teachers must be helped to make proper adjustments to this end;

[10] "Larger-than-average" as used in this report is defined above, p. 4.

Assistants assume responsibility for much of the teacher's load of clerical work.

An assistant can help a pupil gain confidence in new experiences.

opportunities must be provided even to the provision of new organization schemes to take full advantage of the shifts in the use of teachers' time.

5. The use of assistants does not warrant in any sense the relinquishment of vigilance with respect to meeting all the needs of all the children. In our efforts to teach the whole child tendencies to carve him up and distribute the pieces among various people with the hope that they can be reassembled into a better whole are studiously to be avoided.

6. Adequate material resources, especially operational space, must be provided. Overcrowded classrooms with teacher and assistant constantly in each other's way do not promise success.

7. The special talents of assistants as well as the unique competencies of teachers should be thoughtfully deployed for the benefit of as many pupils as possible.

8. It is hoped that further experimentation with the so-called multiple-faculty organization will be made. Our limited experience with it tempts us to feel that this arrangement and modifications of it are extremely promising as means of spreading the professional services of teachers and at the same time retaining the virtues of the self-contained classroom.

9. Administrators and supervisors must assume responsibility for seeing to it that assistants are never used in such a way as to belittle teaching or to challenge the professional status of teachers. The best way to prevent such development is eternally to think of the assistant's job as that of saving teachers rather than that of saving money.

10. Since legal problems of various sorts, such as certification and insurance, are involved in the use of assistants, local school authorities should always clear with state authorities before inaugurating the plan.

The employment of teacher assistants by no means provides solutions to all the problems of recruitment and to all the problems involved in the most effective use of the competencies of teachers. It should not be regarded as a panacea for all the ills confronting elementary schools. This study clearly shows that the use of this new type of personnel in the staffing of our schools has distinct advantages when properly organized and administered. But instead

of solving many problems, the plan actually makes some of them more acute. For example, to cite only two illustrations, the question of optimum class size for various types of learning must be continuously studied; and teacher preparation programs and orientation programs for assistants must be devised in recognition of new concepts of teaching and of the professional obligations of teachers.

This study was made without prejudice either for or against the use of teacher assistants. The staff would have been just as happy to submit a negative report had the facts warranted it. It is hoped that critics of the use of assistants for teachers as well as those who are committed to it, will continue open-minded, carefully evaluated experimentation with the plan, to the end that procedures can be so perfected as to secure all advantages inherent in it at the same time that they avoid its dangers.